

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application. Please amend claims 23, 29, 30, and 34 and add new claims 36-43 as follows.

Listing of Claims

1-21 (Canceled)

22. (Original) A method of controlling a multi-bell applicator coating system, comprising controlling bell cup rotational speed, shaping air volume and coating delivery rate to each bell applicator in the system such that each bell applicator produces a coating droplet size having a dominant droplet size peak at about 40% to about 70% concentration of about 15 to about 40 microns.

23. (Currently Amended) A method of controlling a multi-bell applicator coating system, comprising the steps of:

a.) determining bell rotational speed, shaping air supply and coating flow rate values for a bell applicator of the multi-bell system to produce a desired droplet uniformity;

b.) using the values from step (a) to ~~determine~~ define a control ratio defined as ~~of~~ (rotation speed multiplied by shaping air supply) ~~over the~~ divided by coating flow rate; and

c.) ~~controlling the rotational speed, shaping air supply and coating delivery flow rate of each the individual bell applicators of the multi-bell system to substantially maintain the control ratio.~~

24. (Original) The method of claim 23, wherein the values determined in step (a) are those which produce coating droplets having a dominant droplet size peak at about 40% to about 70% concentration of about 15 to about 40 microns from the bell applicator.

25-27 (Canceled)

28. (Original) A method of controlling multiple applicators in a coating process, comprising the steps of:

defining a control ratio of atomization energy to coating flow rate for a coating process; and

controlling multiple applicators such that the applicators substantially maintain the control ratio during the coating process.

29. (Currently Amended) The method of claim 28, wherein the applicators are bell applicators and the control ratio is defined as:

$$S \cdot V / CF$$

where S is ~~the~~ bell cup speed, V is ~~the~~ shaping air ~~supplied~~supply, and CF is ~~the~~ coating flow rate.

30. (Currently Amended) The method of claim 28, wherein the applicators are gun applicators and the control ratio is defined as:

$$AS \cdot FS / CF$$

where AS is atomization air ~~supplied~~supply, FS is ~~the~~ fan air ~~supplied~~supply, and CF is ~~the~~ coating flow rate.

31. (Original) The method of claim 28, wherein the defining step is practiced by:

choosing applicator control parameters that provide a desired coating; and

utilizing the chosen control parameters to define the control ratio.

32. (Original) The method of claim 31, wherein the choosing step is practiced by:

adjusting the control parameters to provide at least one of a selected coating droplet size, a selected distribution of coating droplet sizes, a desired droplet uniformity, or a visually acceptable coating.

33. (Original) The method of claim 28, including controlling the applicators to provide a droplet distribution with about 40% to about 70% of the droplets being about 15 microns to about 40 microns in size.

34. (Currently Amended) A method of controlling multiple bell applicators in a coating process, comprising the steps of:
choosing applicator control parameters to provide a desired coating;

defining a control ratio of atomization energy to coating flow rate based on the chosen applicator control parameters, wherein the control ratio is defined as:

$$S \cdot V / CF$$

where S is ~~the~~ bell cup speed, V is ~~the~~ shaping air ~~supplied~~ supply, and CF is ~~the~~ coating flow rate; and

adjusting the control parameters for the applicators to substantially maintain the defined control ratio during the coating process--.

35. (Original) The method of claim 34, including controlling the applicators to provide a droplet distribution with about 40% to about 70% of the droplets being about 15 microns to about 40 microns in size.

36. (New) The method of claim 22, further comprising:
dynamically mixing a plurality of waterborne coating components to form a coating material; and

supplying the dynamically mixed coating material to the applicators.

37. (New) The method of claim 36, wherein the coating components are of differing color.

38. (New) The method of claim 23, further comprising:
dynamically mixing a plurality of waterborne coating
components to form a coating material; and
supplying the dynamically mixed coating material to the
applicators.

39. (New) The method of claim 38, wherein the coating
components are of differing color.

40. (New) The method of claim 28, further comprising:
dynamically mixing a plurality of waterborne coating
components to form a coating material; and
supplying the dynamically mixed coating material to the
applicators.

41. (New) The method of claim 40, wherein the coating
components are of differing color.

42. (New) The method of claim 34, further comprising:
dynamically mixing a plurality of waterborne coating
components to form a coating material; and
supplying the dynamically mixed coating material to the
applicators.

43. (New) The method of claim 42, wherein the coating
components are of differing color.